# Solutions: Random Variables Checkpoint

These questions refer to the following information:

Suppose the scores on an exam are normally distributed with mean μ = 75 points, and standard deviation σ = 8 points.

## Question 1

The instructor wanted to "pass" anyone who scored above 69. What proportion of exams will have passing scores?

*Select one answer.*
*10 points*

- ○ (a) .25
- ○ (b) .75
- ○ (c) .2266
- ○ (d) .7734
- ○ (e) -.75

**Correct answer: (d)**

## Question 2

What is the exam score for an exam whose z-score is 1.25?

*Select one answer.*
*10 points*

- ○ (a) 65
- ○ (b) 75
- ○ (c) 85
- ○ (d) .8944
- ○ (e) .1056

**Correct answer: (c)**

## Question 3

Suppose that the top 4% of the exams will be given an $A^+$ . In order to be given an $A^+$ , an exam must earn at least what score?

*Select one answer.*
*10 points*

- ○ (a) 61
- ○ (b) 73
- ○ (c) .516
- ○ (d) 77
- ○ (e) 89

**Correct answer: (e)**

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